UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,295	01/23/2004	Thomas Volkel	2001P07053WOUS	8259

7590 12/15/2009

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPT.
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER	
WEST, JEFFREY R	

ART UNIT	PAPER NUMBER
2857	

MAIL DATE	DELIVERY MODE
12/15/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS VOLKEL

Appeal 2009-002443
Application 10/764,295
Technology Center 2800

Decided: December 15, 2009

Before JOSEPH F. RUGGIERO, MAHSHID D. SAADAT,
and CARL W. WHITEHEAD, JR., *Administrative Patent Judges*.

SAADAT, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Final Rejection of claims 1, 4-8, 10, 13, 15, and 18. Claims 2, 3, 9, 11, 12, 14, 16, 17, and 19 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

Appellant's invention relates to a method for spectral evaluation of an object which may be carried out independently of the operating state of the object (Spec. 2:16-19). According to Appellant, the evaluation is carried out by configuring an envelope alarm curve for a defined operating state and modifying the recorded frequency spectrum of the object to be tested (Spec. 3:27-32). Claim 1 is illustrative and reads as follows:

> 1. A method for evaluation of a rotating object, the method comprising:
>
> providing a first operating parameter that is an actual rotational speed value;
>
> automatically recording a frequency spectrum of the object to be tested by measuring means, wherein the frequency spectrum has first amplitude values which depend on first frequency values;
>
> automatically using the first frequency values of the frequency spectrum for normalization in relation to the actual rotational speed value;
>
> automatically forming an alarm curve with second amplitude values which depend on second frequency values;
>
> automatically using the second frequency values of the alarm curve for normalization in relation to the actual rotational speed value;
>
> automatically changing the second amplitude values of the alarm curve according to a second operating parameter, wherein the operating states of the object to be tested are characterized by the second operating parameter which is proportional to a load of the object to be tested, and wherein the operating states of the object to be tested are further characterized by a third operating parameter which is proportional to a temperature of the object to be tested;

automatically comparing the first amplitude values of the normalized frequency spectrum with the second amplitude values of the alarm curve which is changed according to the second operating parameter, and the third operating parameter; and

using a result of the comparison to evaluate the object to be tested.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Hoth	EP 0 908 805 A1	Apr. 14, 1999
Piety	US 5,922,963	Jul. 13, 1999
Lofall	WO 99/60351	Nov. 25, 1999

Claims 1, 4-8, 10, 13, 15, and 18 stand rejected as obvious under 35 U.S.C. § 103(a) over Lofall and Piety in view of Hoth.

We make reference to the Briefs (Appeal Brief filed Aug. 23, 2007 and Reply Brief filed Feb. 27, 2008) and the Answer (mailed Dec. 31, 2007) for the respective positions of Appellant and the Examiner. Only those arguments actually made by Appellant have been considered in this decision. Arguments which Appellant did not make in the Briefs have not been considered and are deemed waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUE

The issue is whether Appellant has shown that the Examiner erred in rejecting the claims under 35 U.S.C. § 103. Appellant does not dispute the teachings of Lofall and Piety with respect to the claimed features related to adjustments of alarm curves. Appellant's arguments merely focus on whether combining Lofall and Piety with Hoth would have been obvious to one of ordinary skill in the art resulting in the claimed invention (App. Br. 5-

8). Therefore, the issue specifically turns on whether one of ordinary skill in the art would have combined the disclosures of Hoth with Lofall and Piety and, if so, whether the combination of the applied references teaches the claimed subject matter.

FINDINGS OF FACT

The following findings of fact (FF) are relevant to the issue involved in the appeal.

1. Hoth determines whether operating equipment are performing within their so-called norms by obtaining data during an initial learning mode, which are compared with the data from the monitor mode to estimate the potential for failure. (Col. 3, ll. 14-35.)

2. Hoth obtains dependent norms in the form of average values for each vibration frequency band with respect to temperature and load. (Col. 3, ll. 22-25.)

3. Hoth further provides for sensors for determining the machine temperature as well as the machine load. (Col. 5, ll. 17-24.)

4. Hoth considers temperature in addition to load in calculating certain parametric relationships. (Col. 9, ll. 27-33.)

PRINCIPLES OF LAW

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. *See In re Kahn*, 441 F.3d 977, 987-88 (Fed. Cir. 2006); *In re Young*, 927 F.2d 588, 591 (Fed. Cir. 1991); *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

> Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'

KSR Int'l. Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007).

The *KSR* Court further recognized that "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp." *Id.* at 421.

ANALYSIS

Appellant's contentions focus on the way Hoth uses temperature data and state (App. Br. 5) that Hoth uses such data as a multiplier for adjusting a calculated probability of failure numbers, whereas the claims require considering the temperature data for adjusting an alarm curve. Appellant restates the details of the process disclosed in Hoth and concludes that one of ordinary skill in the art would not have been motivated to combine Hoth with Lofall and Piety because Hoth uses temperature data in a manner different from the method described in Lofall and Piety (App. Br. 7-8).

We agree with the Examiner's reasoning that Hoth is relied on merely to teach that temperature is an additional parameter in evaluating characteristics of operating equipment (Ans. 7, 17). As stated by the Examiner (*id.*), Hoth describes temperature as an operational parameter relied on in evaluating and monitoring equipment (FF 1-4). While Hoth evaluates the performance characteristics of operating equipment by comparing the monitored data with those of the learning mode (FF 1),

temperature is nonetheless described as one of the parameters that provide the necessary data for evaluating the operation of the equipment.

Therefore, contrary to Appellant's argument (Reply Br. 2) that Hoth, which relates to adjustment of a probability, cannot be properly combined with Lofall and Piety, which relate to adjustment of alarm curves, the proposed combination does not require incorporating the entire system of Hoth in Lofall and Piety. In fact, the teaching value of Hoth relied on by the Examiner is in using temperature as one of the operating parameters for evaluating the object or equipment, not in the specific evaluating approach implemented by Hoth. As such, one of ordinary skill in the art would have considered using temperature as one of the operating parameters in evaluating the object. Modifying Lofall and Piety with Hoth would have been obvious because a person of ordinary skill in the art would recognize that using temperature would have provided an additional operating parameter in adjusting the alarm curves. *See KSR*, 550 U.S. at 421. Therefore, Appellant has not presented any convincing arguments or evidence that the Examiner erred in combining the references.

CONCLUSION

For all of the above discussed reasons, we find no error in the Examiner's position that one of ordinary skill in the art would have combined the disclosures of Hoth with Lofall and Piety and the combination of the applied references teaches the claimed subject matter. With respect to independent claim 18, Appellant relies upon similar arguments as advanced with respect to independent claim 1(App. Br. 8). Therefore, we sustain the

35 U.S.C. § 103 rejection of independent claims 1 and 18 as well as dependent claims 4-8, 10, 13, and 15, which are not argued separately.

ORDER

The decision of the Examiner rejecting claims 1, 4-8, 10, 13, 15, and 18 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

gvw

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPT.
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830